



STATE OF UTAH
DEPARTMENT OF HEALTH

DIVISION OF ENVIRONMENTAL HEALTH
150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

Alvin E. Rickers, Acting Director
Room 426 801-533-6121

(801) 533-6146

MAR 7 1980

James O. Mason, M.D., Dr.P.H.
Executive Director
801-533-6111

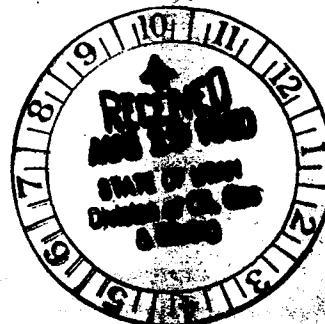
DIVISIONS

Community Health Services
Environmental Health
Family Health Services
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and Standards

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Administrative Services
Health Planning and
Policy Development
Medical Examiner
State Health Laboratory

Mark R. Welsh, Chief Engineer
Ranchers Exploration and Development
Corporation
P.O. Box 6217 1776 Montano Road NW
Albuquerque, New Mexico 87197



RE: Construction Permit
Escalante Silver Mine
Enterprise, Utah

Dear Mr. Welsh:

We have reviewed the plans and design criteria submitted by you on February 25, 1980, for the proposed minewater discharge from the Escalante Silver Mine.

As a result of our review we find the plans and proposed effluent conditions to be in conformance with the Utah Wastewater Disposal Regulations and a construction permit as constituted by this letter is hereby issued subject to the following considerations:

1. Starting in the fall of 1981, the existing mine will be dewatered in various stages by pumps installed in deep wells in the hanging wall of the vein. A flow of 22,000 gpm will be pumped for two years followed by pumping 27,000 gpm for 2 3/4 years, followed by pumping upwards of 40,000 gpm for slightly over four years.
2. The water will be discharged into an existing earthen canal on the property. A portion of the water will be allowed to flow to an existing 14 mile earthen canal that flows northerly from the mine, in order to satisfy any beneficial use requirements of farmers along the canal, in conjunction with approvals from the State Engineer. The majority of water will be picked up with additional high volume low head pumps, from the existing canal, and pumped to a new combination pipeline and earthen canal (one mile and 4 1/2 miles respectively) flowing southerly toward Enterprise. This facility is expected to be constructed during the summer--fall of 1980.

3. The waters will be discharged into the natural main recharge drainage for Escalante Valley, namely Shoal Creek. The water pumped out of the ore body will then recharge the natural aquifer and migrate toward the mine, and be pumped out again. This circle of pumping, recharging and repumping will combine for the life of the mine below the water table.
4. There will be nothing added to these waters discharged. The quality of the water has been determined during the pilot mining operation started in September 1979 when limited dewatering with existing pumps was accomplished. The analyses available indicates the water meets the numerical standards for Class 4 waters protected for agricultural uses including irrigation of crops and stockwatering.
5. A water monitoring program will be instituted, essentially as recommended by Dames and Moore in their report to you of September 18, 1979. It will consist of monitoring wells for water level and/or quality. The water will be analyzed by the laboratory at ~~Southern Utah State, Cedar City~~, for constituents as shown in the Dames and Moore report. Monitoring data should be submitted to the Bureau of Water Pollution Control. FOR CHEMICAL S.L.C.
6. You are required to obtain any necessary National Pollutant Discharge Elimination System Permit from the Environmental Protection Agency as the State of Utah is required to certify permits written by this agency.
7. The mill, ancilliary facilities and tailings pond are now being designed for zero discharge, utilizing liners, concrete containment facilities, and collection basins. Plans concerning these wastewater facilities should be submitted as soon as possible for inclusion in this construction permit. Also include plans and design criteria for sanitary wastewater disposal facilities.

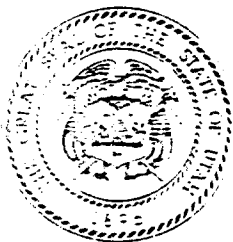
Sincerely,

UTAH WATER POLLUTION COMMITTEE

Calvin K. Sudweeks
Executive Secretary

cc: Southwestern District Health Department

EHP:lp



James D. Miller, M.D., Dr.P.H.
Acting Director
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June 4, 1980

Mr. Mark R. Welsh, Chief Engineer
Ranchers Exploratory and Development Corporation
P.O. Box 6217
1776 Montano Road N.W.
Albuquerque, NM 87197

RE: Amended Construction Permit
Escalante Silver Mine
Enterprise, Utah

Dear Mr. Welsh:

We have reviewed the plans and design criteria for treating sanitary wastewater originating from the proposed mill building, assay lab and administration building at the Escalante Silver mine near Enterprise.

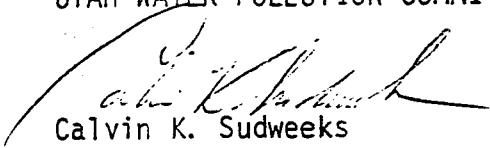
As a result of our review we find the plans to be in conformance with the Utah Wastewater Disposal Regulations and approve them for inclusion as part of our construction permit of March 7, 1980 which was issued at that time for the minewater discharge from the Escalante Silver Mine. This part of the construction permit is issued subject to the following considerations:

1. The design capacity of the treatment facilities is based on an estimated work force of 75 persons at 60 gallons/person/day or a total of 4500 gpd.
2. The proposed treatment system consists of a septic tank and subsurface absorption field. The septic tank will have a minimum liquid volume of 4500 gallons.
3. Effluent from the septic tank will be discharged into the underground absorption field consisting on nine 100 ft. long trenches, 2.5 feet wide plus 100 feet of interconnecting pipe to provide a continuous system. The system design is based on a percolation test rate of 7 minutes per inch.

4. After construction, but before backfilling, the outfall sewer, septic tank and drainfield must be inspected and approved by a representative of the Southwestern District Health Dept.
5. The mill auxillary facilities and tailings pond are now being designed for zero discharge, utilizing liners, concrete containment facilities and collection basins. Plans concerning these wastewater facilities should be submitted as soon as possible for inclusion in this construction permit.

Sincerely,

UTAH WATER POLLUTION COMMITTEE



Calvin K. Sudweeks
Executive Secretary

cc: Southwestern District Health Dept.

EHP:een